

NEW PRODUCT TECHNOLOGY DEVELOPMENT

ABOUT ANDERAL TECHNOLOGIES. Anderal Technologies is located in Hermitage, PA at the LindenPointe Technology Center, providing Electronically Assisted Manufacturing (EAM) techniques to stainless steel and other alloys. EAM is a potentially disruptive technology which is supported with three patents approved and two patents pending. The company employs approximately 20 employees.

THE CHALLENGE. Anderal Technologies has been working with The Warren Company on an Electrically Assisted Manufacturing (EAM) project which required a feasibility test to determine if the EAM technology will validate the results of performing stress relief and flattening of two stainless steel materials.

MEP CENTER'S ROLE. NWIRC (NIST MEP affiliate) worked with Anderal by supporting the feasibility study conducted by PSU and 3 other consultants in the EAM testing by performing 90 Bend Testing Plan for Material A (316 or 304), Compression Machine and 3 Bending Fixture Design and Build-2 Phase Testing, and Twist Testing. Anderal provided all materials, machining, and machined parts. The feasibility study was completed and consisted of completing the 90 Bend Testing plan for material A (316 or 304) for current density and duration on grain, thickness and radius. Results from the application of current of the brush across a full sheet led the team in a different/positive direction, and the remainder of the initial project was then changed. Later, utilizing the advanced manufacturing technology among 179 presentations/800 attendees at a PSU Student Research and Creative Accomplishment Conference, four PSU students took 1st and 2nd place in Engineering Presentations for: Electrically Assisted Forming; Electrically Assisted Global Springback Elimination in AMS-T-9046 Titanium and 2024-T-3 Aluminum after Single Point Incremental Forming; EAM effect on Stainless Steel, Titanium, and Magnesium; and Effects of Conventional Heating Versus Electrically Heating on Compression Testing. All four students have been involved with Anderal in progressive R&D efforts on the EAM technology advancements.

"The Northwest Pennsylvania Industrial Resource Center has been very helpful to us in meeting our objectives. It's a great program and we look forward to continuing our work together!"

-Ronald L. Anderson, CEO

RESULTS



3 new/retained jobs



\$250,000 increased/retained sales



\$100,000 investment in products/processes



\$30,000 investment in plant/equipment



\$20,000 saved in unnecessary investments

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